

Decision No. 75944

**ORIGINAL**

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of  
SAN DIEGO GAS & ELECTRIC COMPANY,  
a corporation, for an order approving  
deviation from the requirements of  
Section 5(e)(1) of General Order  
No. 94-A

Application No. 51102  
(Filed May 23, 1969)

O P I N I O N

Applicant's Request

By this application, San Diego Gas & Electric Company (Applicant) seeks authority to deviate from the requirements of the fourth paragraph of Section 5(e)(1) of General Order No. 94-A, covering the 20-year inspection requirements of its propane storage vessels located in the City of San Diego. These vessels are designated as California PUC 358 to 375 - C-HPL, inclusive, 376 to 393 - C-HPL, inclusive, and 395 - C-HPL, a total of 37 vessels. These vessels were installed in 1949 and are required to have a 20-year inspection during 1969.

Said deviation will permit the required internal inspection of Applicant's vessels by the use of ultrasonic testing equipment in lieu of visual inspection required under the order. Should the results of any such ultrasonic test indicate any vessel to be in a defective or hazardous condition, Applicant shall remove the vessel from service, repair and test same before placing it back to service.

Support for Deviation

The fourth paragraph under the heading "Additional Inspections" of Section 5(e)(1) of General Order No. 94-A presently specifies as follows:

"... When the vessels is buried and/or cannot be entered for an internal inspection, a sufficient number of plugs shall be cut from, or holes bored in, the shell at points believed most subject to internal and/or external corrosion, in order that examination for corrosion can be made ..."

The design of applicant's propane storage vessels does not permit the conventional internal inspections as required by the order without cutting away sections for entry or by removing test coupons. In order to cut plugs for examination, it is necessary to empty and purge the vessels. The temporary transfer and storage of thousands of gallons of propane is a difficult procedure. In addition, cutting of plugs and repair operations call for restress relieving and retesting operations, which create further difficulties.

In lieu of the presently required destructive practice of cutting plugs from the vessels for corrosion examination, applicant proposes to use the nondestructive ultrasonic inspection to detect the presence of internal corrosion.

Since the adoption of General Order No. 94-A in 1952, nondestructive methods of vessel inspection have been developed in addition to physical entry for examination of internal corrosion. Ultrasonic metal thickness gauges are available which will measure plate thickness of vessels with utmost accuracy. Such inspection by ultrasonics is conducted on the outside of the vessel surface while the vessel remains in service, and any physical disconnection or cutting of the vessel for physical entry or measuring the plate thickness is not required. Furthermore, the ultrasonic testing procedure is preferred over the cutting of the vessel because of its economy, its elimination of extensive repair welding and its elimination of hazards to inspectors involved in crawling inside the vessels.

The Commission has, by Resolution Nos. G-1337, G-1360, G-1385, G-1390, G-1395, and Decision No. 75633, authorized similar deviations to permit the use of this type of inspection in lieu of internal inspection for vessels or holders.

Finding and Conclusion

The Commission finds that the proposed deviation will result in an acceptable alternative to the type of inspection required under General Order No. 94-A and concludes that the application should be granted.

A copy of this decision will be transmitted to the Department of Transportation pursuant to the requirement of Section 3(e) of the Natural Gas Pipeline Safety Act of 1968.

Public notice has been given on the application, affording interested parties an opportunity for hearing; no requests for hearing have been received by the Commission. A public hearing is not necessary.

O R D E R

IT IS ORDERED that San Diego Gas & Electric Company is authorized to carry out the inspection of propane storage vessels designated as California PUC 358 to 393-C-HPL inclusive and 395-C-HPL in accordance with the procedures set forth in its application filed May 23, 1969.

The effective date of this order shall be seventy days after the date hereof.

Dated at San Francisco, California, this 22nd day of JULY, 1969.

William J. Sweeney  
President  
Augustine  
John J. Sullivan  
Thomas J. Morrissey  
Commissioners

Commissioner Fred P. Morrissey, being necessarily absent, did not participate in the disposition of this proceeding.